

CLAIMS

What is claimed is:

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1. A method, comprising:
 - receiving a request for an information object from a client; and
 - determining, according to an information object repository selection procedure, which of a number of information object repositories should service the request for the information object without regard as to whether the information object is actually stored at the information object repository selected according to the selection procedure.
 2. The method of claim 1 wherein the information object repository selection procedure comprises mapping an address of the client to an address of the selected information object repository.
 3. The method of claim 2 wherein the mapping is made according to specified performance metrics.
 4. The method of claim 3 wherein the specified performance metrics comprise one or more of: average delay from the information object repository to the client, average processing delays at the information object repository, reliability of a path from the information object repository to the client, available bandwidth in said path, and loads on the information object repository.
 5. The method of claim 2 wherein the address of the information object repository is selected from a number of addresses of information object repositories.
 6. The method of claim 2 further comprising instructing the selected information object repository to obtain a copy of the information object.

1 7. The method of claim 1 wherein determining which of the number of information object
2 repositories should service the request for the information object comprises one or more of: a
3 direct cache selection process, a redirect cache selection process, a remote DNS cache selection
4 process, or a local DNS cache selection process.

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1 8. The method of claim 7 wherein the direct cache selection process comprises contacting, using
2 a Web server which received the request from the client, to contact a Web router to obtain an
3 address of a topologically close information object repository to the requesting client.

1 9. The method of claim 8 wherein the direct cache selection process further comprises receiving,
2 at the Web server from the Web router, an address for the topologically close information object
3 repository.

1 10. The method of claim 9 further comprising returning, from the Web server to the client, a
2 uniform resource locator (URL) which contains the address of the topologically close information
3 object repository.

4 11. The method of claim 7 wherein the redirect cache selection process comprises contacting,
5 using a Web server which received the request from the client, a Web router to obtain an address of
6 a redirecting Web router which will service the request.

1 12. The method of claim 11 wherein the redirect cache selection process further comprises
2 returning, from the Web server to the client, a uniform resource locator (URL) which contains the
3 address of the redirecting Web router.

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1 13. The method of claim 12 wherein the redirect cache selection process further comprises
2 contacting the redirecting Web router at the address contained in the URL with the request for the
3 information object.

1 14. The method of claim 13 further comprising redirecting, from the redirecting Web router, the
2 client to a topologically close information object repository which will service the request for the
3 information object.

1 15. The method of claim 14 wherein redirecting the client is accomplished using a hypertext
2 transfer protocol (http) redirect.

3 16. The method of claim 7 wherein the remote DNS cache selection process comprises returning,
4 from a Web server which received the request form the client, a statically configured domain name
5 of a redirector DNS server.

1 17. The method of claim 16 wherein the remote DNS cache selection process further comprises
2 resolving, at the redirector DNS server, the statically configured domain name to produce a
3 resolved domain name.

1 18. The method of claim 17 wherein remote DNS cache selection process further comprises
2 providing, from the redirector DNS server provides, the resolved domain name to a Web router.

1 19. The method of claim 18 wherein remote DNS cache selection process further comprises
2 receiving, at the redirector DNS server and from the Web router, an address of a topologically
3 close information object repository for the client.

1 20. The method of claim 19 further comprising providing, from the redirector DNS server, the
2 address of the topologically close information object repository to the client

3 21. The method of claim 7 wherein the local DNS cache selection process comprises returning,
4 from a Web server which received the request from the client, a uniform resource locator (URL)
5 containing a statically configured domain name.

1 22. The method of claim 21 wherein the local DNS cache selection process further comprises
2 providing, from a DNS server, the statically configured domain name to a Web router.

1 23. The method of claim 22 wherein the local DNS cache selection process further comprises
2 receiving, from the Web router, an address of a topologically close information object repository.

1 24. The method of claim 23 further comprising providing, from the DNS server, the address of the
2 topologically close information object repository to the client.

3 25. The method of claim 7 wherein the direct cache selection process is combined with the
4 redirect cache selection process.

1 26. The method of claim 7 wherein the direct cache selection process is combined with the remote
2 DNS cache selection process.

1 27. The method of claim 7 wherein the direct cache selection process is combined with the local
2 DNS cache selection process.

1 28. The method of claim 7 wherein the direct cache selection process is combined with both the
2 remote DNS cache selection process and the local DNS cache selection process.

3 29. The method of claim 7 wherein the redirect cache selection process is combined with the
4 remote DNS cache selection process.

1 30. The method of claim 7 wherein the redirect cache selection process is combined with the
2 redirect DNS cache selection process and the local DNS cache selection process.

1 31. The method of claim 7 wherein the direct cache selection process is used for information
2 objects that will be immediately loaded without user action.

1 32. The method of claim 7 wherein the redirect cache selection process is used for information
2 objects that will loaded only after some user action.

1 33. The method of claim 7 wherein the remote DNS cache selection process is used for
2 information objects that will be loaded only after some user action.

1 34. The method of claim 7 wherein the local DNS cache selection process is used for information
2 objects that will be loaded only after some user action.